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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,618

05/24/2006

Hongyu Wang

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08/12/2009

INTEL/BSTZ

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EXAMINER

PANNALA, SATHYANARAYA R

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,618	<b>Applicant(s)</b> WANG, HONGYU	
	<b>Examiner</b> Sathyanarayan Pannala	<b>Art Unit</b> 2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/20/2008</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Application No. 11/580,681 filed on 5/24/2006 has been examined. In this Office Action, claims 1-31 are pending.

#### ***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The examiner has considered the certified copy of the Application China PCT/CN2005/001754 dated 10/24/2005 for priority claiming.

### **Information Disclosure Statement**

3. The information disclosure statement (IDS) submitted on 3/20/2008 is in compliance with the provisions of 37 CFR 1.97 and has been considered by the examiner.

#### ***Specification***

4. **Abstract of the Invention** is objected. Because, it is a copy of claims and Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should

include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

5. The **summary of the invention** not included in the specification. A summary is required that is clearly indicative of the invention to which the claims are directed. See MPEP §§ 608.01(d).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

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- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claim 1 is directed to "method" claim and rejected under 35 U.S.C. 101. However, the method recited on claim 1 is not a patent eligible process under 35 USC § 101. Based on Supreme Court precedent and recent Federal Circuit decisions, the method claim should positively recite an apparatus or a machine that accomplishes the method steps, or positively recite the subject matter that is being transformed. Hence, claim 1 is not directed to statutory categories. Claims 2-12 are dependent on claim 1 and they are also rejected under the same rationale as claim 1.

8.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-10, 13-22, 24-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda et al. (7,533,378) hereinafter Maeda.

11. As per independent claims 1, 13, 24, Maesa teaches the claimed, a method comprising creating a data structure to store progress information on one or more concurrent operations to access a file system of a non-volatile memory (Fig. 20, col. 17, lines 53-54, and col. 3, lines 42-33); and

executing the one or more concurrent operations based on the progress info (col. 5, lines 23-26).

The other limitation of claim 13, Maesa teaches the claimed, volatile memory (see Fig. 30, element 2340).

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12. As per dependent claims 2, 14, 25, further comprising initializing the progress information to include one or more locations of a non-fragment unit of the file system being operated in each concurrent operations (col. 7, lines 49-52).

13. As per dependent claims 3, 20, further comprising retrieving the progress information to obtain one or more locations of a non-fragment unit of the file system associated with each concurrent operation (col. 3, lines 43-47).

14. As per dependent claims 4, 15, further comprising operating on a fragment of the file system as indicated by the progress information according to each concurrent operation (Fig. 7, col. 12, lines 35-40).

15. As per dependent claims 5, 16, 26, further comprising updating the progress information associated with a concurrent operation, in response to the completion of the concurrent operation on a fragment of the file system (Fig. 5, col. 10, line 66 to col. 11, line 3).

16. As per dependent claims 6, 17, 27, further comprising from the progress information associated with the concurrent operation, deleting one or more locations of a non-fragment unit of the file system associated with the fragment (Fig. 18, col. 15, lines 47-50).

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17. As per dependent claims 7, 18, 28, further comprising continuing each concurrent operation on one or more fragments of the file system, in response to determining that the progress information associated with the concurrent operation comprises one or more locations of a non-fragment unit of the file system associated with the one or more fragments (Fig. 10, col. 13, line 64 to col. 14, line 3).

18. As per dependent claims 8, 19, 29, further comprising removing the progress information for each concurrent operation, in response to determining that the concurrent operation on the file system is completed (Fig. 16, 18, col. 15, lines 47-52).

19. As per dependent claims 9, 21, 30, further comprising in response to determining that one concurrent operation moves one or more locations of a non-fragment unit of the file system to one or more new locations, updating the progress information relating to the one or more locations with the one or more new locations (Fig. 10, col. 13, line 64 to col. 14, line 1 and lines 3-6).

20. As per dependent claims 10, 22, 31, further comprising in response to determining that a write operation replaces one or more sequence tables of the file system by one or more new sequence tables, updating the progress information on the one or more sequence tables with progress information on the one or more new sequence tables (Fig. 17, col. 15, lines 31-35).



***Claim Rejections - 35 USC § 103***

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

22. Claims 11-12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (7,533,378) hereinafter Maeda, and in view of Barreh et al. (US Patent 7,185,178) hereinafter Barreh.

23. As per dependent claims 11-12, 23, Maeda does not explicitly teach detecting one or more high priority concurrent operations. However, Barreh teaches the claimed, detecting whether there are one or more high priority operations in the one or more concurrent operations, during executing each concurrent operation on a fragment of the

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file system as identified by the progress info and further comprising in response to detecting one or more high priority operations, performing the one or more high priority operations after completing the concurrent operations on the fragment (Fig. 1, col. 3, lines 45-58). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combine the teachings of the cited references because Barreh's teachings would have allowed Maeda's method teaches in multithreaded processors, the instruction cache is shared between two or more threads, by providing a fetch mechanism to permit the different threads to fetch from the instruction cache. (col. 1, lines 23-26).

#### ***Contact Information***

**24.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (571) 272-4115. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sathyanarayan Pannala/  
Primary Examiner, Art Unit 2164

srp  
August 7, 2009